

عنوان مقاله:

Urinary tract infection in epileptic patients, the causative pathogens and their antimicrobial susceptibility pattern

محل انتشار:

پانزدهمین کنگره بین المللی صرع ایران (سال: 1397)

تعداد صفحات اصل مقاله: 1

نویسندگان:

Mohammad Pooya - *Molecular Biology Department, Pasteur Institute of Iran*

Shahram Sabeti - *Department of Pathology, Loghman Hakim Hospital, Shahid Beheshti University of Medical Sciences*

Masoud Mardani - *Infectious Diseases and Tropical Medicine Research Center, Shahid Beheshti University of Medical Sciences*

Moein Saleh - *Molecular Biology Department, Pasteur Institute of Iran*

خلاصه مقاله:

Background: It is well understood that urinary tract infection (UTI) can breakthrough seizure in epileptic patients by lowering its threshold, especially if it is accompanied by fever and leads to dehydration. Therefore, it is important to efficiently treat UTI in these patients, considering the causative pathogens and their antimicrobial resistance patterns. This study was conducted to evaluate UTI, the related uropathogens, and their antibiotic resistance patterns in patients suffering epilepsy in Iran. **Methods:** A 4-year study was performed among the epileptic patients hospitalized in/ referred to the Loghman hospital who had UTI at the same time from August 2014 until September 2018. The isolates were collected from urine samples and subjected for differential cultures. Disk diffusion method was used to evaluate antibiotic susceptibility patterns and detect extended-spectrum beta-lactamase (ESBL)-producing Gram-negative bacteria according to the Performance Standards for Antimicrobial Susceptibility testing published by the Clinical and Laboratory Standards Institute in 2018. Multi-drug resistance (MDR) was defined based on a proposal published by a group of international expert from the European Centre for Disease Prevention and Control and the Centers for Disease Control and Prevention in 2012. **Findings:** Fourteen isolates were recovered from 11 epileptic patients (7 female, 4 male; 3 patients had re-infection), nearly 80% of them were *Escherichia coli* and *Pseudomonas aeruginosa* (50% and 28.5% respectively). However, in male patients, especially in the elderly ones, *P. aeruginosa* isolates were dominant. Resistance of these two bacteria to nalidixic acid, trimethoprim/sulfamethoxazole and specially extended-spectrum cephalosporins was worryingly high (more than 75%). Though, they were totally sensitive to imipenem, and their susceptibility to amikacin and nitrofurantoin was relatively high (73% and 70% respectively). All *E. coli* isolates showed ESBL pattern, and 43% of them were MDR. Meanwhile, 50% of *P. aeruginosa* isolates were ESBL-producing, and none of them showed MDR pattern. In the re-infection episodes of UTI in 2 young women, the causative *E. coli* isolates were significantly resistant, while the bacteria responsible for the acute phases were not antibiotic resistant at all. **Conclusion:** It seems that UTI in epileptic patients needs a precise attention on the causative pathogens, mainly according to patients' age and gender, and the phase of the infection. ... Moreover, the high prevalence of ESBL pattern in these Gram-negative uropathogens explains

